Noggin (NOG, Symphalangism 1 (Proximal), SYM1, Synostoses (Multiple) Syndrome 1, SYNS1)

Catalog number

N3100-07B

Supplier

United States Biological

Noggin is involved in numerous developmental processes, such as neural tube fusion and joint formation. The morphogenesis of organs is initiated by a downgrowth from a layer of epithelial stem cells. This process is achieved through the receipt of signals from 1) a WNT protein (WNT3A) to stabilize beta-catenin; and 2) Noggin, which is a bone morphogenetic protein inhibitor. Noggin mutations in unrelated families with proximal symphalangism (SYM1) and multiple synostoses syndrome (SYNS1) have been identified, which have multiple joint fusion as their principal defect.

Applications

Suitable for use in Western Blot. Other applications not tested.

Recommended Dilution

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot Store at -20°C. Aliquots are stable for at least 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Synthetic peptide comprising residues 156-170 [PVLYAWNDLGSRFWP] of the human Noggin protein. Homology: Sequence is 100% conserved in rat and mouse.

Formulation

Supplied as a liquid in PBS, pH 7.2.

Purity

Purified by immunoaffinity chromatography.

Specificity

This antibody is specific to the NOG protein. Species Crossreactivity: Human. Other species not yet tested.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

WB

Crossreactivity

Hu

Storage

-20°C

Reference

1. Bachiller, D., Klingensmith, J., Kemp, C., Belo, J. A., Anderson, R. M., May, S. R., McMahon, J. A., McMahon, A. P., Harland, R. M., Rossant, J. and De Robertis, E. M. The organizer factors Chordin and Noggin are required for mouse forebrain development. Nature 403: 658-661, 2000.
2. Valenzuela, D.M., Economides, A.N., Rojas, E., Lamb, T.M., Nunez, L., Jones, P., Ip ,N.Y., Espinosa, R. III, Brannan, C.I., Gilbert, D.J., Copeland, N.G., Jenkins, N.A., Le Beau, M.M., Harland, R.M., and Yancopoulos,G.D.,
Identification of mammalian noggin and its expression in the adult nervous system. (1995) J. Neurosci. 15:6077-6084.
3. Gong, Y., Krakow, D., Marcelino, J., Wilkin, D., Chitayat, D., Babul-Hirji, R., Hudgins, L., Cremers, C.W., Cremers, F.P.M., Brunner, H.G., Reinker, K., Rimoin, D.L., Cohn, D.H., Goodman, F.R., Reardon, W., Patton, M., Francomano, C.A., and Warman,M.L., Heterozygous mutations in the gene encoding noggin affect human joint morphogenesis. (1999) Nat. Genet. 21:302-304